

### **REMARKS/ARGUMENTS**

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and claims 2 and 6 have been amended to more particularly point out and distinctly claim the subject matter which applicant regards as the invention. In addition, claim 5 has been canceled. Accordingly, claims 2 and 6 are pending in the application.

Applicant notes that:

- the subject matter now claimed in step (b) of amended claim 2 is set forth on page 3, lines 11-13 of the specification;
- the subject matter now claimed in step (c) of amended claim 2 is set forth on page 3, lines 13-15 of the specification;
- the subject matter now claimed in step (d) of amended claim 2 is set forth on page 3, lines 14-15 of the specification;
- the subject matter now claimed in step (e) of amended claim 2 is set forth on page 3, lines 15-16 of the specification;
- the subject matter now claimed in step (f) of amended claim 2 is set forth on page 3, lines 16-18 of the specification;
- the subject matter now claimed in step (g) of amended claim 2 is set forth on page 3, lines 18-19 of the specification;
- the subject matter now claimed in step (h) of amended claim 2 is set forth on page 3, lines 19-20 of the specification;
- the subject matter now claimed in step (i) of amended claim 2 is set forth on page 3, lines 20-21 of the specification;

- the subject matter now claimed in step (j) of amended claim 2 is set forth on page 6, lines 15-21 of the specification;
- the subject matter now claimed in step (k) of amended claim 2 is set forth on page 7, lines 11-17 and page 19, lines 10-12 of the specification;
- the subject matter now claimed in step (l) of amended claim 2 is set forth on page 7, lines 22-25 of the specification; and
- the subject matter now claimed in step (m) of amended claim 2 is set forth on page 8, lines 3-17 of the specification.

Thus, no new matter has been added to the application.

In the prior Office Action, the Examiner rejected claim 6 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner contends that the specification does not disclose that the pulverizing step can be conducted in a sterile condition using a hot air desiccating machine at the same time as the desiccating step.

In response, applicant directs the Examiner's attention to page 8, lines 11-17 of the specification, wherein it is disclosed that:

In the pulverizing step 306, the pulverizing may be conducted in a sterile condition. This serves to prevent contaminating bacteria from adhering again to the sterile dehulled soybeans (C) because the interior of the pulverizer is susceptible to proliferation of contaminating bacteria due to a remaining trace amount of soy flour. For example, the heating sterilization may be achieved by causing hot air of 60°C or higher to communicate in the interior of the pulverizer where the pulverizing step 306 is conducted, using a hot air desiccating machine such as AEROFIN HEATER.

Clearly, there is literal support in the specification for that which is claimed in claim 6. The specification discloses that that pulverizing is conducted in a sterile

condition using a hot air desiccating machine, which, of course, also desiccates as it pulverizes. Reconsideration of the rejection of claim 6 under 35 U.S.C. §112, first paragraph is thus respectfully requested.

Also in the prior Office Action, the Examiner rejected claims 2, 5 and 6 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner requested clarification regarding how the soybeans are rendered sterile, and stated that the phrases "lower level," "reducing denaturation," "available ingredients" and "or less" were indefinite. By this amendment, claim 2 has been amended to explain how the soybeans are rendered sterile and to eliminate use of the phrases the Examiner stated were indefinite. In view of the amendments made to claim 2, reconsideration of the claim rejections under 35 U.S.C. §112, second paragraph is respectfully requested.

Also in the prior Office Action, the Examiner rejected claims 2 and 5 under 35 U.S.C. §103(a) as being unpatentable over Lewis et al., U.S. Pat. No. 4,748,038. The Examiner contends that Lewis et al. discloses the process for producing full fat soy flour as claimed in claim 2 except for a classifying step, which the Examiner contends would have been obvious to one having ordinary skill in the art. Applicant respectfully submits that the process disclosed in Lewis et al. does not include (k) a partially-inactivating steaming step where the sterile cotyledons passing the sterilization inspection step are steamed for 120 seconds by hot water or steam heated at a temperature of 90°C so as to deodorize the cotyledons and inactivate a digestion inhibiting enzyme. As disclosed in the specification, certain enzymes in soybeans cause unpleasant odors and tastes in products produced with soy flour

unless such enzymes are denatured. Soybeans also contain trypsin inhibitors, which reduce the availability of trypsin, which is an enzyme essential to human and animal nutrition. By steaming the cotyledons in step (k) for 120 seconds at 90°C, the enzymes that can cause malodor and bad taste and the trypsin inhibitors can be significantly inactivated while leaving the remaining important enzymes found in soybeans active. Since the desirable enzymes are not inactivated, the soy flour produced by applicant's method can be used as an ingredient in processed foods such as bean curd, bread and pasta. In addition, applicant's claimed method assures that soy flour is sufficiently sterilized such that processed foods made using the soy flour can be kept for a long time. If the temperature exceeds the range taught in the specification, desirable enzymes and proteins in the soybeans are denatured, which impairs the nutritional value and the ability for humans and animals to digest the soy flour.

Lewis et al. teaches a heat treatment step for the production of soy flour from soy beans wherein both enzymes that can cause malodor and bad taste and trypsin inhibitors are denatured, but the heating conditions are such that the desirable enzymes are also denatured, resulting in a "bland" soy product.

In addition Lewis et al. does not disclose a dehulling step that will produce sterile dehulled soybeans as claimed in claim 2. Lewis et al. teaches that whole or split soybeans can be used (see col. 3, lines 28-29). In the split soybean embodiment, Lewis et al. simply states that the soybeans are dehulled and that the loose hulls separated before the beans are subsequently processed (see col. 3, lines 48-51). The Examples only mention the use of "aspiration equipment" to separate the hulls from the split soybeans (see, e.g. col. 5, lines 54-55). No

additional teaching is supplied by Lewis et al. Thus, Lewis et al. does not teach a dehulling step that includes two sieving steps and an additional dehulling step as claimed in claim 2. In view of the amendments to claim 2, reconsideration of the rejection of claim 2 under 35 U.S.C. §103(a) is thus respectfully requested.

Also in the prior Office Action, the Examiner rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over Lewis et al. in view of JP 60-105468. In response, applicant notes that claim 6 depends from claim 2 and that JP 60-105468 does not teach or suggest the process steps recited in claim 2 that are missing in Lewis et al. The soy product of JP 60-105468 also lacks many of the desirable characteristics of the soy flour obtained according to the invention. Thus, the subject matter claimed in claim 6 is not obvious in view of the combination of Lewis et al. and JP 60-105468.

Finally, in the prior Office Action, the Examiner indicated that JP 50-157548 was not considered because an English abstract or discussion of its relevancy was not submitted. Applicant notes that since JP 50-157548 was filed on June 13, 1974 and published on December 19, 1975, this application was in old Japanese Patent Office ("JPO") patent format that did not include an abstract. A mechanical translation is also likewise unavailable since there is no text file version of this publication and only an image file available through the home page of JPO. Applicant has submitted a English language translation of the first claim of JP 50-157548.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is

invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. KOY-16174.

Respectfully submitted,

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